

Since retiring from the Department of Biological Sciences (National University of Singapore) in 2014, **CHOU Loke Ming** was appointed as Adjunct Research Professor at the University's Tropical Marine Science Institute until 2019. During that time, he also held adjunct positions at the Department of Biological Sciences and the Lee Kong Chian Natural History Museum to teach the 'Environmental Science' course in the MSc Environmental Management Programme. He was awarded an Emeritus Professorship in 2019.

He obtained his PhD from the University of Singapore in 1976 and has over 40 years of research experience in marine and coastal environment management and coral reef biology covering Singapore and Southeast Asia. He is recognized for his leadership in the periodic compilation of Southeast Asia's coral reef condition for the global reef status reports from 1998 to 2008 published by the Global Coral Reef Monitoring Network (GCRMN), and the East Asian Seas Region reports (2004, 2010, 2014, 2018) published by Japan's Ministry of Environment. He was editor of the UNEP/COBSEA 'State of the Marine Environment Report for the East Asian Seas: 2009', the first of such an assessment for East Asia.

In recent decades, his research focus expanded to include reef restoration through his participation in various coral translocation projects in Singapore and the region. Singapore has lost 60% of its coral reefs through reclamation and coastal use change and the existing reefs are challenged by high sedimentation. Marine environment utilization remains heavy in urbanizing coastal cities and he is examining restoration approaches that not only minimize reef degradation but also enhance coral development in degraded reefs and non-reef habitats. He believes that restoration can slow the rate of loss and reverse the trend. His research has shown that restoration under such environmental pressures is feasible and that active intervention like transplanting corals on seawalls hastens coral community development on these features. His reef restoration research includes selection and modification of techniques that can cope with high sedimentation and the use of *in-situ* nurseries to enhance growth and survival of coral fragments prior to transplantation. The research with *ex-situ* nurseries indicated that growth and survival of juvenile corals can be enhanced by nutrients and the use of gastropod grazers to control algal overgrowth. On-going research also indicated that with active restoration, it is possible to establish coral communities in non-reef areas, opening the possibility of developing coral communities in new locations.

He has a deep interest in marine conservation and was involved in the preparation of different editions of the Singapore Blue Plan. Much of his research has contributed to the development of management measures related to marine biodiversity conservation in Singapore.

His numerous professional services to international and regional institutions include being a member of the GCRMN Scientific and Technical Advisory Committee (1996 to 2012) serving as Chairman from 2003 to 2005, member of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP – 2010 to 2016), and member of the Asia Environmental Council Executive Board (1998 to 2015). He served as advisor/expert to regional projects such as the UNEP South China Sea Project (2002-2008) and the GEF/UNDP Partnerships in Environmental Management for the Seas of East Asia (1993- 2003).

He received a number of teaching excellence awards at Faculty and University level and also awards for community and environment work. He is an Honorary Fellow of the Singapore Institute of Biology and a Fellow of the Singapore National Academy of Sciences. His visiting

appointments were for both, teaching (Waseda U, Yale U) and research (Ryukyus U, Chulalongkorn U), and he participated in teaching programmes at Osaka U, City University of Hong Kong, Nanjing U. The undergraduate and graduate courses he taught included 'Environmental Science', 'Marine Conservation', 'Vertebrate Zoology' and 'Global Environmental Change'.

His contributions to the University were at Department, Faculty and University levels and included serving as Master of Temasek Hall for 16 years since its establishment in 1988. He was appointed Director of the University's new Bachelor of Environmental Studies (BES) programme (2011 to 2014) and was on the Management Committee of the University's Masters in Environmental Management Programme since its initiation in 2001 until 2017, when he continued to serve as Special Advisor.

He is co-leader of the ASEANAREAN EXPEDITION SERIES, a private voluntary initiative which commenced in 1997 to document the marine parks of the ASEAN region. This is a major undertaking aimed at strengthening networking and developing research collaboration with marine science institutes, local communities and interested sectors throughout the region. The first expedition to Thailand resulted in the publication of the book "The Marine Parks of Thailand" in 1998. The second expedition to Indonesia in 1999 is the first Asian-led expedition to be given coverage by National Geographic Channel Asia. Three half-hour documentaries were telecast in September 2002 and a book "Marine Parks of Indonesia" was published in 2013.

His H-index from Google Scholar is 42 (i10 index 149) in July 2019 and he has to date supervised or co-supervised 24 PhD, 35 MSc students and numerous undergraduate research students including visiting scholars from various universities. He secured S\$8.15 million in research funding (\$1.41m from the University and \$6.74m from external agencies).

He provided consultancies to local agencies as well as international agencies such as UNEP, FAO, World Bank and WorldFish Center. This included his appointment by United Nations Environment Programme's Regional Office in Bangkok to review the capacity of Cambodia's Ministry of the Environment for coastal management and develop a concept project proposal on coastal zone management for the Ministry, and an appointment by the Technical Advisory Committee of Food and Agriculture Organization to a 5-member panel to conduct an External Programme and Management Review of the International Center for Living Aquatic Resources Management, a research institution under the Consultative Group on International Agricultural Research (four week mission covering Solomon Islands and Philippines between Sep 1998 and Feb 1999).

He participated in a number of visiting committees and served as external assessor of institution and programme reviews and promotion of individual appointments. He is on the editorial board of a number of journals and participates actively in the organization of local, regional and international conferences. He has been invited to give presentations at many regional and international conferences and participated in the reviews of reports and research projects for many organizations. His contributions to national agencies have been consistent since the beginning of his university career and they cover professional as well as public/community service. He completed his National Service obligations with the Special Constabulary holding the rank of Inspector from 15 August 1973 to 15 September 1981.